

IN THE CLAIMS:

Claims 1-10 (Canceled)

11. (New) A turbo decoder comprising:

at least two effective decoding units operative to use a soft output Viterbi algorithm; and
a number of normalization units each located at an output side of a respective decoding
unit,

wherein only a subset of the decoding units has a normalization unit associated therewith
at its output side.

12. (New) The turbo decoder according to claim 11, wherein the decoding
unit not having a respective normalization unit associated therewith at its output side is provided
with data representative of a normalized output from the normalization unit of a preceding
decoding unit of the subset.

13. (New) The turbo decoder according to claim 11, wherein the turbo
decoder includes first and second decoding units, in which only the first decoding unit has a
respective normalization unit associated therewith at its output side.

14. (New) A mobile communications device, characterized in that it
comprises a turbo decoder according to claim 11.

15. (New) A turbo decoding method comprising the steps of:
using a plurality of effective decoding units operative to use a soft output Viterbi algorithm; and
normalizing data obtained from use of each of the decoding units with a respective normalization factor,

wherein the data obtained from use of only a subset of the decoding units are normalized with a normalization factor variable during operation and the data obtained from use of the other decoding unit(s) are normalized with a time constant normalization factor.

16. (New) The turbo decoding method according to claim 15, wherein the time constant normalization factor is equal to one.

17. (New) The turbo decoding method to claim 15, wherein only the decoding unit(s) provided with data representative of a normalized output from the respective normalization unit(s) of a preceding decoding unit(s) of the subset is/are normalized with the time constant normalization factor.

18. (New) The turbo decoding method according to claim 15, wherein first and second decoding units are used, and wherein the data obtained from use of the first decoding unit is normalized with the normalization factor variable during operation and the data obtained from use of the second decoding unit is normalized with the time constant normalization factor.

19. (New) The turbo decoding method according to claim 15, wherein the normalization factors are calculated on the basis of means and variance of extrinsic information produced by the associated decoding unit.

20. (New) The turbo decoding method according to claim 15, wherein the method is performed as a parallel concatenated scheme.